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11-2-02  
Atty. Docket No. P460883 TVG/DDG/fjw

PATENTS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Peter James KEATING

Confirmation No. 2429

Serial No. 09/936,213

GROUP 1723

Filed September 10, 2001

Examiner Ivars C. Cintins

A METHOD FOR RECOVERING PIGMENTS  
FROM ALGAL CULTURES

AMENDMENT

Commissioner for Patents

Washington, D.C. 20231

Sir:

Responsive to the Official Action of July 3, 2002,  
please amend the above-identified application as follows:

IN THE SPECIFICATION:

Page 9, replace the paragraph, beginning on line 7, as  
follows:

B' --It can be clearly seen that by using a number of  
vessels such as (101), connected in series such that the outlet  
(106) of one is connected to the inlet (103) of the next vessel  
in the series, any number of vessels can be connected to each  
other. If both the inlet and the outlet are connected via a  
manifold which can feed either brine or desorption solvent into  
the vessel, then a continuous process cycle of adsorption/  
desorption/adsorption is possible.--

Page 10, replace the paragraph, beginning on line 27, bridging pages 10 and 11, as follows:

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B<sup>2</sup> --A culture of *Dunaliella salina* was grown in outdoor ponds containing sodium chloride at a concentration of 60 g per litre (approximately 1 M) and magnesium chloride at 60g per litre (approximately 0.6 M). When the culture had attained a beta carotene concentration of 11mg per litre, the culture was pumped into the bottom of a vertical perspex cylinder of 100mm diameter at a rate of 1.4 litre per minute. When the cylinder became filled with liquid, 1,600g of magnetite (120 mesh) was introduced into the top of the cylinder. The magnetite moved towards the bottom of the cylinder but became suspended within the cylinder as the fluidised bed which maintained a height of 800 mm. When the fluidised bed became stable, the culture which passed through the bed to the top of the cylinder was sampled and the beta carotene concentration was measured and found to be 0.07 mg per litre. The culture medium emerging from the top of the column was examined under a microscope. There were no intact algal cells observed, however cellular debris, comprising mostly broken cell membranes, and halobacteria were observed.--

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Page 11, replace the paragraph, beginning on line 24, bridging pages 11 and 12, as follows:

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B<sup>3</sup> --A culture of *Dunaliella salina* was grown in outdoor ponds containing sodium chloride at a concentration of 90g per litre (approximately 1.5 M) and magnesium chloride at 90g per